

REMARKS

Claims 1-7, 9-19, 21, 22, 24-28, 31 and 33-39 are currently pending in the subject application and are presently under consideration. Claims 1, 5, 6, 9, 13-17, 21, 31, 33, and 36 have been amended as shown at 2-10 of Reply. Claim 22 is cancelled.

Applicants' representative thanks Examiners for the courtesies extended during the telephonic interview conducted on October 30, 2009. Examiners were contacted to discuss the claim objection and rejections under 35 U.S.C. §112 and 35 U.S.C. §103(a). During the interview a set of proposed amendments were agreed upon that addressed the rejections under 35 U.S.C. §112 identified in the Office Action. These amendments have been incorporated into the claims as shown above. Examiner further indicated that incorporating the limitations of dependent claim 9 into the independent claims and making the independent claims more consistent with the terminology of independent claim 33 would likely place the claims in condition for allowance. As such, the independent claims have been amended in accordance with the recommendations conveyed by the Examiners during the telephonic interview as shown above.

Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

I. Rejection of Claims 1-7, 9-19, 21-22, and 24-28 Under 35 U.S.C §112

Claims 1-7, 9-19, 21-22, and 24-28 stand rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Claims 1 and 21 have been amended to address any issues identified under this rejection. Accordingly, withdrawal of this rejection is respectfully requested.

II. Rejection of Claims 1-7, 9-12, 14-19, 21, 22, 24, 25, 26, 31 and 33-39 Under 35 U.S.C. §103(a)

Claims 1-7, 9-12, 14-19, 21, 22, 24, 25, 26, 31 and 33-39 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Carter *et al.* (US 6,201,996) in view of Harvey *et al.* (US 6,611,739) and further in view of Vaughn *et al.* (US 4,908,746). This rejection should be withdrawn for at least the following reason. Crater *et al.*, Harvey *et al.*, and Vaughn *et al.*, either

alone or in combination, do not teach or suggest each and every aspect of the claimed subject matter.

Independent claim 1 (and similarly independent claim 33) recites *a primary aggregation component associated with an industrial controller, the primary aggregation component is created, via the processor, and defined in response to a query received from an entity remote to the industrial controller and is installed on the industrial controller, the primary aggregation component aggregates a plurality of selected data items stored in the industrial controller into an aggregated subset of data items; a communications component associated with the remote entity, the communications component reads the aggregated subset of data items via a singular communications packet across a network, **the communications component adds at least one secondary aggregation component at the industrial controller in response to increased data demands, wherein the communication component removes the at least one secondary aggregation components in response to decreased data demands; and an update component associated with the remote entity, the update component receives handle information from the industrial controller across the network relating to the plurality of selected data items, the update component employs the handle information to generate an update data packet request that is transmitted across the network to the industrial controller to update one or more data items of the aggregated subset of data items in the industrial controller, wherein the handle information provides a fixed length reference pointer to a memory address in the industrial controller for each of the variable length tag references, wherein the update data packet request employs the fixed length reference pointer in place of a variable length tag reference for each of the one or more data items of the aggregated subset of data items that are to be updated.*** The claimed features advantageously minimize information transmitted across the network used to identify data to be transferred to the remote entity by employing fixed length pointers to memory addresses in the controller to identify data items instead of using variable length tag references which can be very long.

As conceded in the Office Action dated July 9, 2009, Crater *et al.* and Harvey *et al.* fail to teach this novel aspect of the subject claim. Crater relates to communicating among programmable controllers for operating and monitoring industrial processes and equipment. Crater *et al.* provides an object-oriented control structure that facilitates communication between an industrial controller and a remote computer. The control structure is organized around a

database of object items each associated with a control function. For each control function, the items include one or more procedures for performing an action associated with the control function. Harvey *et al.* discloses remotely monitoring diagnostic information on a vehicle. Please note that Crater *et al.* and Harvey *et al.* are not concerned with minimizing information communicated over a network in order identify data to be transferred to a remote entity. Vaughn *et al.* is cited to make up for the deficiencies of Crater *et al.* and Harvey *et al.* Vaughn *et al.* discloses a real-time database system that stores industrial control system data. The system include various task which communicated with industrial equipment and store/access data from the real-time database. The cited tasks are part of the database system and communicate **locally** with the real-time database and remotely with the industrial equipment (See Vaughn *et al.*, column 5, lines 58- column 6, line 5). Cited column 18, lines 60-67 discloses the tasks sending pointers **locally** to the real-time database manager to indicate where the tasks' data is stored. However, this is not a remote communication across a network. The cited reference fails to disclose the specific contents of a communications packet that is used to obtain data remotely from controllers. Moreover, Vaughn *et al.* is also not concerned with minimizing information communicated over a network in order identify data to be transferred to a remote entity. In addition, as indicated by the Examiner in the telephonic interview, the cited references fail to disclose or suggest adding at least one secondary aggregation component at the industrial controller upon, and removing the at least one secondary aggregation components upon decreased data demands. Therefore, the cited references fails to disclose all features as recited in claim 1.

Independent claim 21 (and similarly independent claim 31) recites *requesting tag information from a controller across an industrial control network for a plurality of selected data items in the controller; building an aggregation object from the tag information provided by the controller; installing the aggregation object on the controller; **installing at least one secondary aggregation component on the controller upon increased data demands; removing the at least one secondary aggregation components upon decreased data demands; updating aggregation object data on the controller; receiving data from the aggregation object that has been updated by the controller via a singular communication packet; receiving handle information from the controller relating to the plurality of selected data items, wherein the handle information provides a fixed length reference pointer to a memory address in the***

controller for each of the plurality of selected data items; and employing only the handle information to generate an update data packet that is transmitted across the network to the controller to update the plurality of selected data items in the controller, wherein the update data packet employs the fixed length pointer in place of a variable length tag reference for each of the plurality of selected data items that are to be updated. For the reasons discussed *supra*, Crater *et al.*, Harvey *et al.*, and Vaughn *et al.* fail to disclose the similarly recited features of claims 21 and 31.

In view of at least the foregoing discussion, applicant's representative respectfully submits that Crater *et al.*, Harvey *et al.*, and Vaughn *et al.*, alone or in combination, fail to disclose or suggest all features as recited in independent claims 1, 21, 31, and 33 (and claims 2-7, 9-12, 14-19, 22, 24, 25, 26, and 34-39 that respectively depend there from), and thus fails to make obvious the subject claims. Accordingly, withdrawal of this rejection is respectfully requested.

III. Rejection of Claims 27-28 Under 35 U.S.C. §103(a)

Claims 27-28 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Crater *et al.*, Harvey *et al.*, and Vaughn *et al.* in view of McCoskey *et al.* (US 2003/0028889). This rejection should be withdrawn for at least the following reason. The subject claim depends from independent claim 1, and as discussed *supra*, Crater *et al.*, Harvey *et al.*, and Vaughn *et al.* do not teach or suggest all aspects of amended independent claim 21; and McCoskey *et al.* does not make up for the aforementioned deficiencies of these references. McCoskey *et al.* discloses a search engine for video and digital multimedia. The reference is silent regarding *installing at least one secondary aggregation component on the controller upon increased data demands; removing the at least one secondary aggregation components upon decreased data demands; ... receiving handle information from the controller relating to the plurality of selected data items, wherein the handle information provides a fixed length reference pointer to a memory address in the controller for each of the plurality of selected data items; and employing only the handle information to generate an update data packet that is transmitted across the network to the controller to update the plurality of selected data items in the controller, wherein the update data packet employs the fixed length pointer in place of a variable length*

tag reference for each of the plurality of selected data items that are to be updated as recited in claim 21. As such, this rejection should be withdrawn

IV. Rejection of Claim 13 Under 35 U.S.C. §103(a)

Claim 13 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Crater *et al.*, Harvey *et al.*, and Vaughn *et al.* in view of Bhatt *et al.* (US 6,097,399). This rejection should be withdrawn for at least the following reason. The subject claim depends from independent claim 1, and as discussed *supra*, Crater *et al.*, Harvey *et al.*, and Vaughn *et al.* do not teach or suggest all aspects of amended independent claim 1; and Bhatt *et al.* does not make up for the aforementioned deficiencies of these references. Bhatt *et al.* discloses a system for displaying real-time data at different rates. The reference is silent regarding *the communications component adds at least one secondary aggregation component at the industrial controller in response to increased data demands, wherein the communication component removes the at least one secondary aggregation components in response to decreased data demands; and an update component associated with the remote entity, the update component receives handle information from the industrial controller across the network relating to the plurality of selected data items, the update component employs the handle information to generate an update data packet request that is transmitted across the network to the industrial controller to update one or more data items of the aggregated subset of data items in the industrial controller, wherein the handle information provides a fixed length reference pointer to a memory address in the industrial controller for each of the variable length tag references, wherein the update data packet request employs the fixed length reference pointer in place of a variable length tag reference for each of the one or more data items of the aggregated subset of data items that are to be updated.* as recited in claim 1. Therefore, it is respectfully requested that this rejection be withdrawn.

CONCLUSION

The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 [ALBRP284US].

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicants' undersigned representative at the telephone number below.

Respectfully submitted,
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